

# *America's Darwin*

Darwinian Theory and U.S. Literary Culture

EDITED BY

TINA GIANQUITTO AND LYDIA FISHER

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VIRGINIA RICHTER

## *Ape Meets Primatologist*

### Post-Darwinian Interspecies Romances

DARWINISM IN THE UNITED STATES:  
SCIENCE, RELIGION, AND LITERATURE

THE SCOPES TRIAL that took place in 1925 at Dayton, Tennessee, has remained to this day one of the defining events in the positioning of Darwinism on the American scene. Highly publicized at the time, and inscribed in popular cultural memory through the film *Inherit the Wind* (1960), the Scopes trial stages the U.S. encounter with Darwinism as a pervasive “image of confrontation between evolutionism and religion,”<sup>1</sup> setting an enlightened America that believes in the Constitution and scientific progress against a fundamentalist America that believes in the Bible. Twenty-first-century research has shown that the engagement with evolutionary theory in the United States has been more complex than this dichotomous opposition suggests; however, the coverage of the Scopes trial established an enduring framework for future representations of Darwinism.<sup>2</sup>

The popular epithet for the events at Dayton, the “monkey trial,” points to one of the central questions raised by Darwin: his claim that human and nonhuman primates are genealogically related and that, consequently, the human species does not have a unique, separate status (I call this the “Darwinian narrative”). This contention has always, and everywhere, constituted the core of the popular fascination with Darwin’s theory,<sup>3</sup> but in the United States this interest is intertwined in a peculiar way with religious fundamentalism and its insistence on the special creation of man. As Peter J. Bowler argues, however, evolutionary theory and Christian belief are not necessarily mutually exclusive.<sup>4</sup> In Europe, Protestant as well as Catholic theologians, for example Pierre Teilhard de Chardin, have found ways to reconcile evolutionary theory with a liberal theology. The early reception of Darwinism in the United States, initially limited to academic debates, especially

among theologians influenced by German philological criticism of the Bible, was similarly accommodating.<sup>5</sup> But in the early twentieth century, fundamentalism emerged as a widespread popular movement that postulated a literal belief in Genesis and a concomitant repudiation of evolution.

The Darwinian question of human-ape kinship has been taken up in two recent novels, Sara Gruen's *Ape House* and Benjamin Hale's *The Evolution of Bruno Littlemore*, which will be discussed below. While both novels emphasize, in very different ways, the inclusion of both humans and great apes in a single family of primates, they cannot quite escape the American tradition epitomized by the Scopes trial. Hale's *Bruno Littlemore* tackles the confrontation between evolution and Christianity head on: in his novel, the sexual relationship between a woman and an ape—which results in a pregnancy—attracts the ire of Christian fundamentalists. The ape's autobiography can be regarded as a speech act intended to offer a powerful counternarrative to the foundational tale of human superiority. In *Ape House*, the conflict between religion and evolution is present only as an undercurrent. Christian fundamentalist opposition to Darwinism is not explicitly broached, but rather displaced onto a less radical, conservative position: the celebration of intraspecies heterosexual reproduction and the exclusion of homosexuality. Gruen succeeds in reconciling two incompatible positions, the Darwinian narrative and the clean segregation of the species. In different ways, the clash of values staged at the Scopes trial continues to reverberate even in a cultural context that is informed by ecological concerns, feminism, and a critique of anthropocentrism.

At Dayton's monkey trial, the well-known lawyer Clarence Darrow presented a purely legal argumentation—the implications of the Tennessee Constitution for the teaching of science, no matter what its content—on behalf of the defense; for the prosecution, William Jennings Bryan engaged in an epistemological, theological, and ethical critique of evolutionary theory as such. Two aspects of the science brought up by Bryan—Darwin's conflict with the Bible, and the "hypothetical" nature of evolutionary theory—are of particular relevance here, the first because it brings us to the center of debates in the wake of Darwinism, the second because of its implicit importance for textual studies. As Bryan claimed in the first place, Darwin's proposition that all mammals, and specifically humans and apes, are descended from a common ancestor undermines the biblical account of the separate creation of each species, and the divine establishment of man as apart from and above the natural world. The Darwinian deposing of anthropocentrism entails, Bryan believed, "a degradation of man" and, in consequence, atheism, social unrest, and the brutalization of humankind that had culminated in the First World War.<sup>6</sup> As Jeffrey P. Moran points out, Bryan had long held the belief that the Darwinian "struggle for existence" constituted an endorsement of warfare in general, and that German militarism in particular had been shaped

by the influence of Darwin and his German follower Friedrich Nietzsche.<sup>7</sup> Such concerns about the negative social effects of Darwinism were not unique to the United States; in Europe, they were linked to a sociomedical discourse on degeneration. In this discourse, religion, as an institution in charge of moral instruction and control, played a role as a socially stabilizing factor counteracting the negative influences of modern life; however, the vested interest in a literal interpretation of the Bible constitutes a defining factor of a specifically American anti-evolutionism.<sup>8</sup>

Bryan's second objection to the teaching of evolution was that evolutionary theory was a mere hypothesis, unproven by empirical fact or scientific demonstration: "There is no more reason to believe that man descended from some inferior animal than there is to believe that a stately mansion has descended from a small cottage. Resemblances are not proof—they simply put us on inquiry. As one fact, such as the absence of the accused from the scene of the murder, outweighs all the resemblances that a thousand witnesses could swear to, so the inability of science to trace any one of the millions of species to another species outweighs all the resemblances upon which evolutionists rely to establish man's blood relationship with the brutes" ("Summation," 42). Unlike the law of gravity, which every layperson can test by ocular proof (drop an apple and see what happens), evolution is not testable within a strictly empirical epistemology, that is, by direct observation. As Bryan maintained, "the wisest scientists" have not been able to place evolution at the scene of the murder, so to speak, whereas a "law" that is antithetical to the principle of natural selection (and its unpredictable outcome) is as evident to "any child" as is Newton's law of gravity: "a spiritual gravitation that draws all souls toward heaven" (*ibid.*). By insisting on the general upward gravitation of creation, Bryan attempted to defend the notion of a designed and ordered nature as the basis of an unchanging social order—indicated by the metaphor of similarly unchanging mansions and cottages—and, in the context of the American South, of racial separation. The individual creation of each species and the dominion of (white) men over nature are key features of this worldview.

As became evident at the trial, Bryan's grasp of evolutionary theory was flawed by his ignorance of the latest developments in various disciplines that supported Darwinian evolutionary theory, for example the discovery of early hominid fossils, which contributed to closing one of the most conspicuous gaps in Darwin's argumentation,<sup>9</sup> and, more important, the work that had been going on in genetics since the turn of the century, which was to contribute to the evolutionary synthesis in the 1930s and 1940s.<sup>10</sup> Evolution was a "hypothesis"—in the sense of "not proven"—only within an epistemology that was already obsolete at the time of the trial. However, by harping on the improbability of evolutionary theory, Bryan was unwittingly responding to an aspect that Darwin did not fail to emphasize

himself: the preliminary, inchoate nature of the chain of evidence presented in *On the Origin of Species*.<sup>11</sup>

Far from being a weakness in Darwin's argumentation, his strategic rhetorical modesty, together with the empirical richness of *Origin* (the many examples accumulated over more than twenty years), contributed to the swift acceptance of his theory despite various gaps in the scientific knowledge of his time.<sup>12</sup> One of Darwin's most important frames of reference, domestic breeding or "artificial selection," provided an analogy that only went so far: breeding produces variation within a species, from chihuahuas to St. Bernards, but not entirely new species. The mechanism of inheritance was as yet unknown; the significance of Gregor Mendel's experiments on plant hybridization, while carried out in Darwin's lifetime, was only recognized in the early twentieth century. However, Darwin was not only aware of these gaps, he was ready to point them out. In addition, he sought authority by uniting scientific methods of inquiry with methodologies and rhetorical strategies derived from the humanities, thereby transforming the epistemological foundations of his field from an inductive natural history to a science based on abduction (a term coined by Charles Sanders Peirce): the development of probabilistic scenarios, or "thought experiments," which are then subjected to further testing.

As David Amigoni has argued, Darwin succeeded in establishing credibility for his theory by aligning his own methodology with the textual methods developed in philology, in other words through a double affiliation with the literary field. First, "Darwin's rhetorical strategy draws its persuasive power from the cultural authority associated with linguistic and literary knowledge,"<sup>13</sup> that is, Darwin sought the prestige of these established disciplines for his own emerging field—as did other groundbreaking naturalists before him, such as Charles Lyell, who bolstered the authority of his *Principles of Geology* (1830–33) by numerous references to the classics. Second, by choosing the traditional metaphor of the "book of nature" as his operative trope, but giving it a particular twist—the book of nature is fragmented and therefore only readable if carefully deciphered and reconstructed—Darwin could point out the methodological parallels between philological criticism (which generated a view of the Bible as a historical document), the principles of modern geology (uniformitarianism, actualism, and a steady-state view of the earth) established by Lyell (which not only showed that the earth was much older than the Bible suggested, but which also provided the foundations for Darwin's own work in biology),<sup>14</sup> and his own reflections on the mutability of species. Darwin posited a basic analogy between linguistic change and the transmutation of species. In consequence of this analogy between philology—which could infer, on the basis of the similarities between living languages, a vanished "common ancestor," for instance the Indo-European language—and biology, which in Darwin's hands could

similarly postulate a “missing link” connecting two extant species, the imperfection of the fossil record was turned from an obstacle to, almost, a confirmation of evolutionary theory: “Thus a complex understanding of ‘literature’ consisting of historically descended and interrelated linguistic traditions, as well as the book as an organic object in history, helped Darwin to mount the positive argument for the fragmentary evidence of evolutionary change.”<sup>15</sup>

In addition to Darwin’s rhetorical strategy of self-authorization and the methodological affinity between philology and evolutionary theory, there is a third instance in which Darwinism is aligned with the literary field: the thought experiment. George Levine defines “thought experiments” as “probabilistic stories” that play a crucial role in Darwin’s argumentation in *Origin*.<sup>16</sup> Whereas in the process of institutionalizing scientific disciplines and establishing good scientific practices that took place in the nineteenth century, the lab experiment emerged in the natural sciences as the privileged practice to differentiate—and exclude—“non-knowledge” from knowledge, the literary technique of the thought experiment acquired a new relevance in the non-experimental sciences. Because of Darwin’s ample usage of thought experiments as an epistemological practice, Darwinism currently is of particular interest to the newly emergent field of “agnotology” or “nescience,” which is connected mostly to the history of science and historical epistemology but also to research in the humanities. Robert N. Proctor and Londa Schiebinger define the field as “the study of ignorance making, the lost and the forgotten.”<sup>17</sup> Ignorance, they suggest, doesn’t just happen; it is the result of processes of evaluation and exclusion even of conscious suppression. In the context of German studies and the history of science at some Swiss and German universities and research centers,<sup>18</sup> however, related research has developed a specific focus on nescience and literature that aims at establishing “non-knowledge” as a productive force, as opposed to the absence of knowledge, which is perceived as loss, misinformation, or censorship. Instead, nescience is closely connected to curiosity and wonder and consequently forms a precondition for scientific inquiry.

The literary scholar Michael Gamper has elucidated the links between the marked “non-knowledge” in Darwin’s writing and Darwin’s use of “speculative” and “literary” techniques, which resulted in transforming a scientific field—evolutionary theory—into a rich cultural archive that brought forth numerous creative responses. From the beginning, the debate on Darwin’s theory took place in popular fiction and visual representations as well as in academic texts, and this has to do with the form of Darwin’s argument and with its provocative content. Since Darwin’s central hypotheses could not be observed in nature, his theory formation, according to Gamper, by necessity contained speculative elements. However, Darwin succeeded in turning this epistemological weakness into a strength:

Being able to recognize the similarities between seemingly unconnected phenomena and to produce series of comparable circumstantial evidence within the immense material archive of natural history of his time were the strengths Darwin played out in his books, and with which he responded to the specifics of his own science: namely to the fact that it operated not only in space but particularly in time, that it worked historically rather than experimentally and that it was concerned with processes which eluded direct observation. To do this required a great deal of imaginative creativity on the level of mental capacities; on the level of linguistic representation, however, it needed metaphor, analogy, and narrative.<sup>19</sup>

As studies from Gillian Beer's seminal *Darwin's Plots*<sup>20</sup> to George Levine's *Darwin the Writer* have shown, Darwin's writing was highly literary—inseparably linking empirical observation with imagination, description with narrative, and serialization with anecdote and metaphor—and thereby provided many points of departure for fictional engagements with evolutionary theory, a creative repertoire that has lost nothing of its productive potential ever since. Arguably, the uncertainty or non-knowledge constitutive of Darwinian evolutionary theory contributed to generating narratives about what Thomas Henry Huxley called the “question of questions for mankind”: “the ascertainment of the place which Man occupies in nature and of his relations to the universe of things.”<sup>21</sup> More specifically, the Darwinian narrative of changing species and human-simian kinship invited the production of literary thought experiments such as H. G. Wells's scientific romances: fictional explorations of the potential of evolutionary theory when pushed to its imaginative limits.

In contemporary American fiction, apes are quite a topos, making their appearance in various works from Michael Crichton's science fiction novel *Congo* (1980), in which the gorilla, Amy, trained in sign language, serves as a mediator between a group of American explorers and murderous mutant gorillas in the African rain forests, through Bernard Malamud's dystopian fantasy *God's Grace* (1982), featuring a lonely human survivor of a thermonuclear disaster who tries—and fails—to restart creation with a group of apes, to Daniel Quinn's philosophical novel *Ishmael: An Adventure of the Mind and Spirit* (1992), in which a wise gorilla discusses ethical questions with a human pupil.<sup>22</sup> Widely different in generic affiliation, aesthetic sensibility, and moral seriousness, these novels use the speaking ape as a figure of interspecies mediation, but conversely also to mark the ultimate difference between human and nonhuman primates.

Two recent ape novels, Sara Gruen's *Ape House* (2010) and Benjamin Hale's *The Evolution of Bruno Littlemore* (2011), differ in various ways from their predecessors published in the 1980s and 1990s. In contrast to the exotic settings of *Congo* and *God's Grace* (*Ishmael* is set in New York), Gruen and Hale choose specifically contemporary, American settings (Kansas City, Philadelphia, and Los An-



geles in *Ape House*, Chicago and New York in *Bruno Littlemore*). While Gruen and Hale use their ape figures to criticize various aspects of the American way of life—consumerism, the lack of sustainability, the cruelty to animals in industrialized research, and the voyeurism of mass media—they do not share Malamud's, Quinn's, and Crichton's interest in a larger dystopian vision. Rather, their focus is domestic, geared to the family and interpersonal relations (persons, nota bene, including apes). Another significant difference from *God's Grace* and *Ishmael* (but not from *Congo*) is the choice of women primatologists—in both cases, young, beautiful, blonde, and of junior standing as scientists—as the main participants in the human-simian encounter, reflecting the prominent role of women in primatology and their supposedly more empathetic approach to their objects of study. Both novels juxtapose caring women scientists, specializing in ape language acquisition and social behavior, with “hardcore” male biologists, who do not shrink from harmful animal experiments. Another difference is that these women primatologists' simian counterparts are not gorillas, whether wise or murderous, but chimpanzees (in *Bruno Littlemore*) and bonobos (in *Ape House*).

Human-simian communication is a central issue negotiated in both novels. Various experiments conducted since the 1960s on chimpanzees' and gorillas' capacity to acquire American Sign Language have generated discussions about ape intelligence and about human-ape similarities and differences.<sup>23</sup> The contested outcomes of these experiments open up a productive space of uncertainty and non-knowledge that is filled by literary texts. Fiction can explore thought experiments in which apes not only master ASL and communicate via computers (*Ape House*), but even achieve vocal articulate language and, in fact, become first-person narrators of their own life stories (*Bruno Littlemore*). While novels such as *Ape House* and *The Evolution of Bruno Littlemore* confer personhood on their non-human agents, it is still questionable whether they succeed in “confronting the problem of nonhuman others,” as demanded by Cary Wolfe, a leading proponent of posthumanism.<sup>24</sup> According to Wolfe, the aims of posthumanist theory consist of first, analyzing and countermanding the pervasive privileging of “the human” in Western philosophy (“speciesism”), and second, stressing the inextricable embodiment—the animal, evolutionary roots—of humans as well as their embeddedness in and subservience to a material, technological, and informational environment (*Rites*, 5–6). It is this shared creatureliness of humans and animals that constitutes the ethical basis of posthumanism: “the fundamental ethical bond we have with nonhuman animals resides in our shared finitude, our vulnerability and mortality as ‘fellow creatures.’”<sup>25</sup>

Despite their pro-ape stance, Gruen's and Hale's novels comply with these posthumanist objectives only partly at best. By giving their chimpanzee and bonobo protagonists the ability to speak—whether using articulate speech or sign language—both novels suggest that personhood, with its attendant rights, is not a

human prerogative; but they achieve this at the price of anthropomorphizing the animals. This is, generally speaking, the formula of contemporary ape fiction. Few if any novels with simian protagonists show an interest in exploring the phenomenological differences—for instance, the difference in sense perception—between humans and apes.<sup>26</sup> By representing their simian protagonists as deserving of consideration because they are so similar to humans, Gruen's and Hale's novels remain vulnerable to the charge of speciesism. On the other hand, they indicate that in contemporary culture it is no longer possible to construe the human as an entity that can transcend its animality and materiality. However, the move that both novels make to highlight the embodied state of the human is itself problematic, and discuss below: in both cases, it is the *female* body—traditionally conceptualized as closer to nature than the male—whose material, biological condition is marked out.

Although *Ape House* and *The Evolution of Bruno Littlemore* manifest various similarities on the levels of plot, types of protagonist, and genre—both combine elements of the Freudian family romance<sup>27</sup> with that of a romance proper—they are vastly different in the effects they achieve with these materials. *Ape House* is committed aesthetically and semantically to realist representation, whereas *Bruno Littlemore* embraces the tendencies of postmodern literature. These divergent aesthetic commitments are mirrored in the diegetic representations of the apes' respective language use. While Gruen's bonobos employ their language skills in a way that is presented as unproblematic—they succeed in unequivocally bringing across their meaning, at least to those who are willing to look for it—Bruno's autobiography is more interested in the deferral of meaning: it is self-referential, digressive, and full of intertextual references. This stylistic postmodernism is accompanied on the semantic level by ostentatious displays of sexual transgression, including homosexuality and bestiality. The interaction between humans and bonobos in *Ape House*, in contrast, remains carefully sanitized even while it is represented through the trope of the family (in the Freudian view, a highly sexualized space). Sexuality in *Ape House* is delimited by species boundaries. Moreover, while the bonobos, a species that has become famous for its high level of sexual behavior, represent an alternative society remarkably free from repression, human sexual relations in the novel do not transgress the conventions of heteronormativity.

#### LANGUAGE AND SEXUALITY IN *APE HOUSE*

In *The Descent of Man* (1871), Darwin asserts that “man is descended from some lower form, notwithstanding that connecting-links have not hitherto been discovered,”<sup>28</sup> thus stating explicitly what was only implied in *On the Origin of Species*. Even more radically, he includes the “higher faculties,” such as abstract reasoning, the aesthetic sense, and the ability to communicate, into the evolutionary narrative. In contradistinction to Thomas Henry Huxley who, as a comparative anatomist,

asserted the physical continuity of humans with other species but claimed that “the vastness of the gulf between civilized man and the brutes”<sup>29</sup> was constituted by uniquely human mental capacities, Darwin only saw a difference of degree. In particular, Huxley reserved the traditional Cartesian difference marker, “the marvellous endowment of intelligible and rational speech,”<sup>30</sup> for the human species; in consequence, man is the only living being capable of passing on his accumulated experience from one generation to the next and, therefore, of producing culture. In contrast, Darwin postulated that articulate speech had developed out of gestures and vocalizations, which in turn were connected to emotions shared by humans and animals. In other words, human language clearly has roots in an animal nature common to all species: “The habitual use of articulate language is, however, peculiar to man; but he uses, in common with the lower animals, inarticulate cries to express his meaning, aided by gestures and the movements of the muscles of the face. This especially holds good with the more simple and vivid feelings, which are but little connected with our higher intelligence. Our cries of pain, fear, surprise, anger, together with their appropriate actions, and the murmur of a mother to her beloved child, are more expressive than any words” (*Descent*, 88).

Language is not a “gift” uniquely bestowed on humans. Rather, it has a biological basis and has evolved according to the laws of natural selection: “no philologist now supposes that any language has been deliberately invented; it has been slowly and unconsciously developed by many steps” (*Descent*, 89). The first steps were initiated in human prehistory and have analogies in animal means of communication; for example, Darwin compares the interplay between babies’ “instinctive tendency to speak” (*ibid.*) and the active (cultural) acquisition of language with birdsong, which in each species is similarly universal and instinctive while showing regional variations. In addition to the close connection of “inarticulate cries” and gestures with the emotions, the ability to imitate—to “ape”—shared by all primates is for Darwin the key to the evolutionary emergence of language.

Darwin’s reflections on language are, like many of his other tenets, backed up by thought experiments compounded with observations (by Darwin himself or one of the many naturalists with whom he corresponded) and speculative inferences: “Since monkeys certainly understand much that is said to them by man, and when wild, utter signal-cries of danger to their fellows . . . , may not some unusually wise ape-like animal have imitated the growl of a beast of prey, and thus told his fellow-monkeys the nature of the expected danger? This would have been the first step in the formation of language” (*Descent*, 90). The subjunctive marks the hypothetical nature of the thought experiment at this stage of his theory formation. Fiction, by definition written in an “as if” mode, is a medium that can develop scientific thought experiments into larger, coherent narratives. In Darwin’s lifetime, various writers of fiction explored the implications of evolution not only for the future of humankind, but also for its past.<sup>31</sup>

Since Wolfgang Köhler's behavioral experiments in which he was able to show that chimpanzees have the capacity to deliberate and to solve problems (*The Mentality of Apes* [1917]), research into apes' cognitive and communicative abilities has been extensive, culminating in attempts to teach gorillas and chimpanzees to communicate (with humans and with each other) via ASL or other means.<sup>32</sup> However, the evaluation of such experiments, and of the research conducted by linguists, anthropologists, and primatologists, is highly contested. There is no agreement among experts on the related questions of simian "speech" and "animal culture." To take one prominent position: Michael Tomasello, the director of the Max Planck Institute of Evolutionary Psychology at Leipzig, bases his claim that human communication emerged out of gestures rather than vocalization on his work with nonhuman primates: the vocalizations of great apes are genetically fixed whereas gestures are learned and can be used flexibly.<sup>33</sup> This suggests that there is continuity between simian and human modes of communication, just as Darwin maintained. However, while apes have the ability for intentional communication, according to Tomasello they lack cooperative communication, that is, they do not share with humans "prosocial intention" or altruism. In other words, for Tomasello altruism and cooperation do not only constitute the basis for human communication but, specifically, they are what distinguishes human from simian interaction: ape communication is based on individual practical reasoning, human communication on cooperative reasoning. Shared intentionality is something that other species lack: "This fundamentally cooperative process makes human communication utterly different from the communicative activities of all other species on the planet."<sup>34</sup>

This insistence on human uniqueness, albeit in a single circumscribed sector, is contested by the primatologist Frans de Waal and other advocates of animal culture, who stress "the similarities of animal traditions to human culture, focusing on common characteristics, such as behavioural variation underpinned by social learning, group-specific repertoires, or the diffusion of innovations."<sup>35</sup> My point here is twofold: first, even for the proponents of animal culture and critics of anthropocentrism, humankind continues to provide the benchmarks other species have to meet. Second, the field of inquiry opened by Darwin has not been closed. The question of humans' and apes' relative status, and the epistemological and ethical consequences following from any conclusion, is still up for discussion. It is precisely this ultimate undecidability that opens up a productive space for literary thought experiments about speaking apes.

Ape language acquisition is one of the interests shared by Sara Gruen's and Benjamin Hale's novels. In these works, human-simian communication is explored in various settings of animal research and display, such as a behavioral studies lab, a zoo, a theatrical performance, and reality tv. One crucial difference between the two novels is their choice of narrative structure. *Ape House* is narrated from an external vantage point without a personalized narrator, and the focalization shifts

between various figures: the two main protagonists, the journalist John Thigpen and the primatologist Isabel Duncan, and the group of bonobos who constitute the novel's center of interest. In *The Evolution of Bruno Littlemore*, in contrast, we find an embodied first-person narrator and internal focalization; the story is told by the eponymous hero, an articulate chimpanzee who dictates his memoirs to a human amanuensis. These decisions on narrative presentation have consequences for the different literary thought experiments on ape language acquisition. While both novels affirm that apes have language, in *Bruno Littlemore* this is performed and commented on by the speaking ape himself, whose effectively human status is thus spectacularly displayed.

Whereas we follow Bruno's process of language acquisition and acculturation step by step, in *Ape House* the bonobos are presented from the beginning as accomplished users of ASL and specially designed computers. Apes' linguistic capacity is therefore not problematized; it is presented as a given. The absence of any discussion of the possible limitations and difficulties of human-ape communication implies a concept of language that ignores the conditions of human communication that have been part of linguistics since Ferdinand de Saussure: that language is not expressive but constitutive of significance, that the sign is arbitrary, and that meaning is equivocal and endlessly deferred. In *Ape House*, language is transparent and untroubled; problems in understanding are either of a technical (some humans are not skilled in ASL) or a psychological and ethical nature (some human interlocutors do not recognize the apes as valid subjects of communication). For John Thigpen, the assignment to write an article about the inhabitants of the Great Ape Language Lab in Kansas City results in a complete overthrow of his preconceived worldview: "He'd had a two-way conversation with great apes. He'd spoken to them in English, and they'd responded using American Sign Language, all the more remarkable because it meant they were competent in two human languages. . . . He'd looked into their eyes and recognized without a shadow of a doubt that sentient, intelligent beings were looking back. It was entirely different from peering into a zoo enclosure, and it changed his comprehension of the world in such a profound way he could not yet articulate it."<sup>36</sup> Because he meets them in an egalitarian environment—the lab is run on "non-coercive" principles, and the bonobos are actually consulted before visitors are allowed in—John is enabled to recognize their equality. His discovery that humans are not the only "sentient, intelligent beings" on earth results not only in a revision of his tacitly anthropocentric assumptions, but also in an examination of his own life. The encounter with the bonobos makes John aware that his private and professional lives have been directed by external interests to the detriment of his true values, such as journalistic integrity, on the one hand, and unreserved personal commitment, on the other hand.

The John Thigpen plot line can be described as a triple quest: for a restoration

of his professional integrity, for a restoration of his marriage, and for an acknowledgment from the bonobos that reciprocates his own recognition of their personhood. This last aspect is exemplified by a minor but pertinent episode: while John gets very friendly with the apes and perceives, to his surprise, “how distinct, how differentiated, how almost *human*” (6) they are, he is not attentive enough to see that one of them, the young adult male Mbongi, is wearing a gorilla mask. John’s misapprehension results in Mbongi’s being offended and declining to interact further with the visitor, at which John in turn is left “feeling as if he’d slapped a baby” (ibid.). This breach is only healed in the novel’s final scene, when Mbongi accepts a piece of carrot cake brought by John, who by then has turned from a metaphorical baby-slapper to a father-to-be as well as a pet keeper *and* a successful reporter on nature conservation projects. The bonobos function as catalysts for this process of renewal. The phrase that they are “almost *human*” is a giveaway, however, for the novel’s fundamentally undisturbed humanism, which coincides with its heteronormativity to the point of affirming quite traditional “family values” even if the bourgeois family now includes nonhuman creatures.

It is significant that the apes in question are bonobos, the chimpanzees’ close relatives famed for their peacefulness and sexual activity. As the primatologist Christophe Boesch summarizes the research on populations living in the wild, the bonobo (*Pan paniscus*) has been portrayed “as overly sexual, with regular homosexual interactions between the females, and as exhibiting very cohesive social grouping patterns, with females dominant over males.”<sup>37</sup> Chimpanzees (*Pan troglodytes*), in contrast, are described as living in less-cohesive, smaller groups, with social males dominant over the females. In addition, as Jane Goodall’s research has shown, chimpanzees can exhibit intraspecies violence and even engage in “warfare” with neighboring populations, a type of behavior that certainly has caught the popular imagination.<sup>38</sup> However, as Boesch cautions, the alleged differences between bonobos and chimpanzees may rather be due to “the ecological conditions prevailing in the populations under consideration than to interspecies differences”;<sup>39</sup> moreover, fewer data are available on bonobos than on chimpanzees, so generalizations about the behavior of the whole species are not reliable.

Whatever primatology has to say on the matter, the bonobos’ popular attributes are given great weight in Gruen’s novel. While their basic similarity to humans is stressed—at the outset, we are informed that bonobos and humans “share 98.7 percent of their DNA” (4)—they are presented as a better, utopian version of humanity. (It should be noted that the human genome also closely resembles that of frogs.<sup>40</sup> While human kinship with apes has become not only accepted but embraced in contemporary popular culture, the more radical claim shared by Darwinism and posthumanist theory that even frogs—and insects, and all the rest—are our “cousins” may still provoke some visceral resistance.) Whereas the bonobos remain peaceable, playful, and loving throughout the narrative, hu-

man acquisitiveness and antagonism lead to violence. Shortly after John's visit, the Great Ape Language Lab is bombed by what initially appears to be animal rights activists. Isabel is badly hurt and disfigured in the blast; the bonobos escape, are recaptured, and then are sold by the University of Kansas to an unknown buyer, on the grounds that a continuation of the experiments would constitute a hazard to the university's employees. It turns out that the attack was orchestrated on behalf of the porn tycoon Ken Faulks, aided and abetted by Isabel's fiancé, the scientist Peter Benton, a careerist and "ape torturer." Peter is paid by Faulks to help set up the Ape House, a building equipped with cameras that broadcast the bonobos' interactions, especially their sexual activities, to a prurient TV audience. While this venture initially pays off—twenty-five million viewers subscribe to the show (150)—after some time, the bonobos' performance becomes boring despite the variability and frequency of their sexual engagements, and ratings drop. Apparently, violence is more attractive on television than sex is, but the innately peaceful bonobos resist all attempts to stir up conflict among them. The sagging interest peaks again when the young bonobo Makena gives birth in front of the camera, stirring in viewers, such as John, "something . . . primal" (255)—a climax that eventually results in John's acceptance of procreation: "Suddenly it all made perfect sense. To be able to create life with the woman he loved was a miracle of nature, perhaps the deepest need he'd ever felt" (277). Through his empathy with the simian mother, John is able to connect his own individual relationship with the "miracle" of creating life. The family, the site of reproduction, is thus sanctified (and the father becomes a bit like God).

While the bonobos' sexual versatility is presented in the narrative as positive—it contributes hugely to the peaceful cohabitation of the group—human sexual activity appears as strictly heterosexual and geared to reproduction. The emphasis on procreation explains the overall omission of homosexuality from the novel. The stance on sexuality that *Ape House* adopts is demonstrative tolerance. Within heterosexual parameters, variation and experimentation are endorsed, inside and outside of marriage, even including venal sex: a group of strippers is portrayed with sympathy. The novel also takes care to distance itself from the homophobia that is perceptible in the audience's reactions to some of the bonobos' practices. The target audience for the broadcasts—"working-class heterosexual adult human males" (177)—cheer female homosexual activities but feel intensely uncomfortable with male-to-male intimacy. This attitude is not shared by any of the novel's sympathetic figures, who consider all of the bonobos' activities as natural. Human homosexuality, however, simply does not occur. In contrast, Lydia in *Bruno Littlemore* has a lesbian relationship before she becomes Bruno's lover. In *Ape House*, almost all the human protagonists, including minor characters, either find happiness in a heterosexual relationship and/or get pregnant, as do both John's wife, Amanda, and the stripper Jovanka (who steals Ken Faulks's semen and thereby metes out

a dose of poetic justice to the unscrupulous mastermind behind the bonobos' exploitation). Counting Makena's delivery, the novel ends with three pregnancies.

The bonobos' versatile sexuality serves as a foil for the heteronormative narratives involving the human characters. Just as human homosexuality is tacitly passed over, so another, more fundamental boundary transgression goes unmentioned: sexuality between species. While there is physical contact between Isabel and her charges—playful “roughhousing” (11)—there is never any suggestion of an erotic undercurrent. The bonobos' “humanity” is repeatedly marveled at, but in effect the species boundary remains carefully intact. This is emphasized in the novel's conclusion. Due to Isabel and John's joint endeavors, the bonobos are rescued and given a new home, a habitat designed by Isabel's new boyfriend, Gary Hanson, and “protected by a double fence” (295). The fence restores the privacy of which the bonobos had been deprived by Faulks; it also demarcates the division between human and ape territory. The apes will live happily ever after in what amounts to a gated community protecting them from unwarranted human intrusion. But the fence also closes them in.

The happy ending is achieved after the human protagonists John and Isabel have learned the lesson of love taught by the bonobos. Their multiple quests—for the bonobos spirited away by Ken Faulks, for a mate and true love, and, perhaps most important, for a sense of self-worth—are finally successful. The overall harmony is sealed by a final kiss between man and ape, John and the bonobo matriarch Bonzi, sanitarily divided by a glass partition: “BONZI LOVE VISITOR. BUILD VISITOR NEST. KISS KISS. She stood on the rim and pressed her lips against the glass. . . . John lined himself up with Bonzi's lips and planted a big kiss on them” (300). *Ape love human*. All is well if humans develop the capacity to return this love, but without crossing the material and metaphorical line that divides the species. John will never share the nest built by Bonzi. Despite the novel's insistence that bonobos and humans belong to a biological as well as mental community of equals, the interspecies romance is safely contained not only by the glass partition, but by the heteronormativity and species normativity governing the rules of erotic engagement. The Darwinian narrative of the dissolution of species boundaries is thus tactily overturned, even while the closeness between apes and humans is celebrated.

GAINING AND LOSING LANGUAGE IN *THE*  
EVOLUTION OF BRUNO LITTLEMORE

The quest structure connects *Ape House* to the romance, a popular and variable genre loosely defined, according to medievalist Helen Cooper, by a cluster of shared features. In addition to the quest, these include a concern with the hero's inward thoughts, feelings, and aspirations; a concern with ideals, especially those



of chivalry; a belief in human perfectibility in a social context; and a happy ending.<sup>41</sup> While not all of the generic features are realized, *Ape House* shares several aspects with the romance beyond the heterosexual love plot with which contemporary forms of the genre are frequently associated. Most important are the faith in human perfectibility—which both Isabel and John achieve—and the realization of unworldly ideals in a mundane environment. What the ideals of chivalry were for the medieval romance are the values surrounding interspecies relations in *Ape House*, for instance mutual respect, the recognition of the other's personhood and rights, and codes of behavior such as vegetarianism. *The Evolution of Bruno Littlemore* is much more skeptical about the viability of such ideals. Hale's novel does take up several romance features but only to subvert them; it can more properly be called an anti-romance (just as it is, in various ways, an anti-bildungsroman). The love plot ends tragically; and mutual respect across species boundaries yields to rejection, revilement, and finally murder. Bruno, similarly to Gruen's bonobos, ends up in a secure ape research facility, but whereas the bonobos' new home is denoted as a paradisiacal, self-governed space—"the most ape-friendly habitat I've ever seen outside of a jungle," as Isabel observes (293)—the Zastrow National Primate Research Center where Bruno is finally confined resembles both a prison and a madhouse.

The important theme of ape language formation is handled in a strikingly different way in the two novels. In *Bruno Littlemore*, language is not represented as a property that one simply "has" and can use unproblematically for the purposes of communication. Bruno's progressive acquisition of language is punctuated by various linguistic crises, culminating in Lydia's loss of language due to a brain tumor and his own final perception of language as a metaphorical prison, encoding humans' alienation from life and the knowledge of death rather than the message of love and nest building expressed by Bonzi at the end of *Ape House*.

The bonobos' mastery of ASL is an essentially plausible extension of the known language projects with great apes. In contrast, *Bruno Littlemore* is not content with offering a probabilistic thought experiment based on existing scientific practices; rather, Hale's story of the speaking chimp, while taking cognitive-psychological research with apes as its point of departure, pushes beyond the limits of realistic representation into the fantastic and the grotesque. The novel's frame of reference is not only the everyday world but a long literary tradition of imagining the Other. This is emphasized by a web of intertextual references, most important to Laurence Sterne's *Tristram Shandy*, Franz Kafka's "A Report to an Academy," Georg Büchner's *Woyzeck*, and William Shakespeare's *The Tempest*, as well as to Charles Darwin's writings. This marked investment in the novel's own literariness results in a different conceptualization of language than the one in *Ape House*, where constative and imperative uses of language prevail (for example, Bonzi uses a computer to order food for the Ape House). In *Bruno Littlemore* language is

not exclusively functional, directed at communication with others, but contains a strong self-referential and even solipsistic dimension. It is poetical in the sense of Roman Jakobson, that is, not concerned with content but with the message itself, or, in Bruno's own term, it is musical—pure noise. Accordingly, Bruno's linguistic ability is not the result of systematic teaching, but of chance, imitation, play, and love. He learns to speak from and has his "first completely reciprocal conversation"<sup>42</sup> with Haywood Finch, the mentally retarded night watchman of the University of Chicago's Erman Biology Center, where the young chimp is a subject in a series of cognitive experiments. Initially treated more like a thing than a sentient being, Bruno is left behind at night in a state of "panic, terror, abandonment" (57). From his speechless but not voiceless nocturnal rages—"I wept and screamed. I screamed and wept" (ibid.)—Bruno is rescued by Haywood. Perhaps precisely because of his mental handicap, Haywood is able to perceive what the highly trained scientists, seeing only the object of their research, have overlooked: the fellow creature. Their conversation consists of the mutual imitation of nonsensical sounds: "From a raw clay of nonsense we were every moment molding signifiers that had no signifieds, empty signs, decorative and happily meaningless words. Did we communicate anything? No. But language for the sake of communication follows language that is noise for the sake of fun—that is, *music*—and—this I truly believe—all truly beautiful language is for the sake of both: communication and music" (63).

Bruno's entry into culture—his first word, his first signifier that refers to a signified—happens outside institutionalized ape language studies: at night, unobserved, in a closed and deserted lab. The momentous scene of the ape's first meaningful utterance goes unrecorded by science, or rather, the awe and intellectual upheaval connected to the transgression of the linguistic species boundary is registered not, as in *Ape House*, by the human interlocutor but by the speaking ape himself. At one of their secret nightly sessions, Haywood Finch "asks" Bruno's name by pointing at him:

I pointed at myself and made my first attempt at conscious spoken language:

"Ooh, no."

I almost slapped my hands over my mouth—maybe I even *did* slap my hands over my mouth in astonishment at the dangerous magical noise that had just come out of it! It was a *word*! It was—it was *my own name*! (72)

Haywood shares Bruno's glee at the "noise," but it falls to Bruno to articulate the intellectual shock experienced when the demarcation line between apish mimicry and human poesis is crossed. As Judith Butler has argued with reference to Louis Althusser, social existence is enabled when a being is called by a name or, in Althusser's term, "interpellated" by an authority.<sup>43</sup> Although Bruno is given his name by the scientists, he is not interpellated by them, not accorded the status

of a subject, because this would be unthinkable in relation to a mere animal. It is Haywood Finch, the most subaltern human being imaginable, who *asks* him his name and thereby allows Bruno to name himself. Haywood thus fulfills a decisive function in Bruno's transition into a social existence, however liminal it is destined to remain: "One comes to 'exist' by virtue of this fundamental dependency on the address of the Other. One 'exists' not only by virtue of being recognized, but, in a prior sense, by being *recognizable*" (*Excitable Speech*, 5). The situation is tautological: prior to his first speech act, Bruno is not "recognizable" to the scientific authorities as anything other than an animal; but without the recognition by an Other, he cannot speak. Haywood's intervention is therefore crucial, albeit in itself insufficient for Bruno's effective transformation into a subject.

As Haywood, due to his marginal social position, does not have the authority to affirm Bruno's speech act, the utterance of the name has to be repeated in the presence of somebody so authorized. However, this is not so easy. Bruno succeeds in making his newly acquired personhood known to Lydia, but when he is asked—finally, interpellated—to repeat his speech act in the presence of the other scientists, and into a recorder, he remains silent: "I opened my mouth. But my lungs had been robbed of their oxygen. I don't know what happened. I had just spoken—it was no accident, I knew that I had consciously and deliberately spoken my name to Lydia just a moment before. But I was speechless now. My diaphragm would not cooperate, it refused to provide the upward thrust of air in the throat necessary to bring a word into being. A demon of silence had entered me" (85). Bruno is betrayed by his creatureliness, by his body's failure to cooperate in his conscious bid for recognition by a human Other.

Eventually, Bruno's distinctiveness from other apes *is* perceived and he achieves what he wants: he is taken away from the lab to cohabit with Lydia. But henceforward, Bruno's linguistic and social status remains precarious, his aspiration to become human punctured by relapses into apish silence and rage. Like his literary predecessors, Shakespeare's Caliban and Kafka's Red Peter (Bruno's father, caught in the wild and brought to Chicago's Lincoln Zoo, is named after Kafka's speaking ape), Bruno is caught in a state of unhappy in-betweenness. And while he follows, like Tarzan, the stages of an ontogenetic recapitulation of phylogenetic evolution, this upward trajectory is repeatedly disrupted by external circumstances and his own apelike nature, until in the end a disillusioned Bruno repudiates human language and culture, only to realize that he "cannot unlearn my humanity" (575), that he is trapped in the prison house of language, a condition that mirrors his actual existence. Bruno is literally in a prison-like research institution while he is dictating his memoirs, shut away because he killed the scientist Dr. Norman Plumtree, Lydia's former boss, who performed artificial insemination—using his own semen—on a chimpanzee, Bruno's sister. Bruno's life is saved precisely by his in-between status: neither fully human—"I am not and have never been regarded

as a legal citizen of this or any nation" (570)—nor fully animal, his life is dedicated to science. After an only partly successful interpellation into a social existence, he returns to what he was in the beginning—an object of scientific inquiry: "They'll probably put my brain in a jar and test the thisness and thatness of it. And I am sure their scrutiny will reveal nothing" (ibid.).

One of the reasons for Bruno's disappointment with the human condition is Lydia's tragic fate. As Bruno grows up and simultaneously becomes more and more human—achieving language, bipedalism, and literacy; wearing clothes; and becoming an artist—their relationship changes, culminating in physical intimacy and, finally, in Lydia's pregnancy. But his ascent to humanity is chiasmatically accompanied by Lydia's descent. The attractive, healthy, young, promising scientist first loses her job at the University of Chicago—partly because "project Bruno" doesn't turn out as expected—and then more and more her control over her life, until her severe headaches are diagnosed as an untreatable tumor. The growth presses on the Broca's area in her brain, resulting in an increasingly debilitating aphasia:

Lydia was out of commission. Even when she was awake, she just puttered around our apartment with the vacant eyes of a starving person, picking up things and putting them back down, often babbling incoherently, or else remaining disturbingly silent. If she wanted to salt her food at the table she would point at the saltshaker and say, "The . . . the . . . the . . . the . . . . . the . . . " Meaning, of course, "Please pass the salt." Lydia's silences grew longer, darker, more profound. Her words were leaving her. One by one the elements of her vocabulary were packing up their things and vacating their apartments in the condemned building of her mind. (347–48)

Lydia still has a hold on the signified but cannot produce the corresponding signifier. It is almost as if only a limited amount of language proficiency were available, and the better Bruno gets at expressing himself, the more Lydia goes into a decline. Sliding into poverty, dependence, and the loss of self-consciousness, she is brutally victimized by Christian fundamentalists incensed by her sexual relations with an ape and by the fact that she carries Bruno's baby: they assault her in her own flat while her housemates, Bruno and her friend and former lover Tal, are out for a walk, and rip the fetus from her belly. Lydia is only narrowly saved from bleeding to death, but never fully recovers. After a long period of hospitalization, she succumbs to her tumor.

However, Lydia's descent into an ultimate "vegetable" state, while inversely symmetrical to Bruno's evolutionary rise, is not explicable in terms of a harsh poetic balance. While her case of language loss is the most extreme, the novel abounds with figures, both human and simian, who are "pitifully imprisoned behind an opaque wall of incommunicability" (264). Even while displaying his linguistic virtuosity as the author of his memoirs, Bruno repudiates the bliss he experienced

during his language lessons with Haywood Finch, and denounces language, the sign of human dignity, as either an inadequate tool or the instrument of suffering. Like Caliban, Bruno's profit on learning language is that now he knows how to curse his mentor, humankind—and how to write novels. The celebration and the critique of language, as humankind's greatest achievement and bane, hover in unresolved contradiction.

THE PRIMATOLOGIST'S BODY:  
REPRODUCTION AND VIOLENCE

Primatology is not only the study of apes. Apes are construed as the human Other that serves to delimit what we think of the human self, a self that is always gendered. Not least for this reason it is significant that the human heroines in *Ape House* and *The Evolution of Bruno Littlemore* are trained primatologists. Their primary meeting ground with the apes is their workplace, the lab (importantly, not a habitat in the wild or a zoo). The lab is a heavily regulated and depersonalized part of a research institution. Nevertheless, the women primatologists soon cross the border between the institutional and the private; they become emotionally involved with their objects of research. Concomitantly, these women's gendered, biological bodies soon become a main focus of attention. It is not only women's reproductive capacity that is negotiated here in relation to the Darwinian narrative, but also the creatureliness of their bodies, their conspicuous vulnerability, which links them to mortal animals and hence disturbs the religious notion of humans as, sole among all creatures, immortal. In this respect the novels can be linked, albeit tenuously, to the agenda of posthumanism, in particular its insistence—in Cary Wolfe's formulation, which in turn draws on Jacques Derrida's work on animals—on human embodiment in a material world. As mentioned above, however, the fact that it is specifically the female body that is connected with injury, illness, and death as well as procreation limits the posthumanist impact of both narratives, since in Western dualistic thinking woman has always been aligned with nature, the body, and animality against the male-coded categories of culture, the mind, and rationality.<sup>44</sup>

Language is also traditionally positioned on the male side of the dichotomy. Lydia's aphasia can be seen as the epitome of woman's exclusion from the symbolic order and, hence, language. However, the situation in her case is more complex than that. As a primatologist, she is also connected to rationality and science. As Bruno's surrogate mother, she is responsible for teaching Bruno to speak following his initiation into language by Haywood Finch, and she functions as a mediator, a spokesperson, between their private world and the external world of science and society. For a long time, she is actively in control of her speech acts and her actions in a way Bruno is not. Her agency is undermined only by initially invisible and

ultimately uncontrollable physiological processes inside her body, the growth of a tumor in her brain and the growth of a baby in her womb.

As Donna Haraway has remarked, "Primatology is western discourse, and it is sexualized discourse."<sup>45</sup> Despite its entanglement in colonial history and a framework of heroic exploration, primatology has achieved an exceptional status regarding its disciplinary gender politics. Since the Second World War, women field researchers have achieved great success, often helped in their careers by the powerful "father figure" of Louis Leakey. In her seminal study *Primate Visions*, Haraway has analyzed the interaction of gender, race, and popular media within field studies on apes.<sup>46</sup> Embodied by the prominent figures of Jane Goodall, Dian Fossey, and Biruté Galdikas in the pages of *National Geographic*, in documentaries, and in feature films such as the Fossey biopic *Gorillas in the Mist* (1988), primatology has come to be perceived as a "women's science" which, as Haraway points out, does not necessarily mean feminist science.<sup>47</sup> In particular, Haraway critically analyzes the positioning of women primatologists as go-betweens on the border between nature and culture. The women form special bonds with apes in contrast to their male colleagues' greater detachment: "apes and white people, especially women represented as surrogate mothers and scientists, were placed together *simultaneously* in the 'natural' world of the forest, sharing adolescence and child-rearing practices, and in the 'social' world of language studies, sharing a love for cuddly pets."<sup>48</sup> The gendered division of labor in ape studies still places man outside nature, whereas women primatologists, in their double role as scientists and surrogate mothers, serve as conduits, as "highly replayed mediators at the modern boundary between culture and nature."<sup>49</sup> The strange duality of the woman primatologist's position has been expressed by Francine Patterson, a developmental psychologist who taught ASL to the gorilla Koko, whom she also raised from infancy: "From the beginning of Project Koko I had a dual role: I was a scientist attempting to teach a gorilla a human sign language, but I was also a mother to a one-year old infant with all an infant's needs and fears."<sup>50</sup>

In Sara Gruen's and Benjamin Hale's novels, the narrative of the woman primatologist's closeness to (simian) nature intersects with the genre of the human-simian family romance. The primatologist needs to find her place as both a daughter and a mother; this task is successful in *Ape House* but ultimately fails in *Bruno Littlemore*. Additionally, the primatologist's gendered body becomes a site of violent incursions. In Lydia's case especially, her womb is the site of struggle between her transgressive sexuality and the Christian fundamentalists' desire to maintain the purity of humankind by violently "cleansing" the polluted female body. As I discuss below, this is also a struggle about words, meaning, and reading, about the relation between the body and language in which the female body becomes the medium of male inscription.

The female protagonists in both novels come from dysfunctional families and

find in their affiliation with apes a *better* surrogate family, thus enacting precisely the pattern of Freud's family romance. While Isabel and Lydia function as mothers who educate and protect the apes, they are in turn "adopted" by them and find in the mixed human-simian family the emotional warmth they lack elsewhere. In particular Isabel, whose mother was an alcoholic and a part-time prostitute, repeatedly calls the bonobos "her family" (10, 11, 90) and finally succeeds in creating a home for the apes and herself: "We'll go home soon, Bonzi. It will be a different home, but it will be a good home, and I'm going to be there. I'm never leaving you again" (286). Isabel's homemaking on behalf of the bonobos—building a new, better Ape House with the assistance of her new lover—can be regarded as a surrogate for, and perhaps a prelude to, the founding of her own reproductive family.

Isabel's quest for a (human and simian) family of her own is interlaced with a parallel trajectory, which could be called the achievement of agency and comfort within her own body. Due to her unhappy family background, she seems insufficiently anchored in her body and, consequently, distanced and insecure. Her problematic relation to her body is aggravated by the injuries she sustains in the bombing of the Great Ape Language Lab. Although Isabel is, in contrast to Lydia, only a random victim of attack, the resulting disfigurement is traumatic: "Isabel found herself looking at a complete stranger. The scalp and cheeks were swathed in gauze. The nose was broad and smashed, with an absurd nose diaper taped loosely beneath the oxygen piping to catch the bloody runoff. Its flesh was swollen and blue, with specks of reddish purple. The eyes were slits between swollen pads of flesh and the white of one was scarlet. Trembling fingers appeared beside her face, and these were indisputably hers" (44). This confrontation with her disfigured mirror image marks the nadir of her alienation from her own body. Her visible impairment is compounded by the curtailing of her communicative capacity; because her jaw is wired, she cannot speak and is forced to use ASL, which in turn results in the police treating her as physically and mentally disabled: the detective "practically shouted, leaving a space between words and phrases" (45). As a witness, she is almost on a par with the bonobos, who are not questioned at all. Isabel's loss of agency and personal rights reaches the lowest point when her picture is taken and published without her permission. Like the apes on reality TV, she has no privacy and no control over the circulation of her image. At this stage, Isabel, speechless and immobilized, is reduced to a passive object, almost like an animal.

However, the crisis marks a turning point in her life. Isabel progressively reclaims her lost agency. The battle on behalf of her "family," the endangered bonobos, results in her psychological recuperation alongside her physical recovery. John observes the difference: "She seemed so happy and relaxed. Even on the day they'd met, before the bombing, there had been something reserved and anxious about her. There was no sign of that now. The very way she moved her body was different. The old Isabel would never have taken his arm" (297). Body and soul are

healed; the rift between them has closed. The successful emancipatory tale finally joins the family romance; the new ape habitat symbolizes both Isabel's professional success and her newfound private happiness.

In *The Evolution of Bruno Littlemore*, the opposite movement occurs: the family romance is replaced by the erotic romance, which in turn leads to tragedy. From being Lydia's adopted "baby" (28), Bruno graduates to become her lover, and finally makes her pregnant. This interspecies transgression is conceptualized in Bruno's retrospective commentary as both deviance and perversion (42) and as emotional healing—for Lydia, who lost her husband and unborn child, and for himself, who was separated from his family of origin: "In a past life, Lydia had been robbed of a son and a lover. And I, Bruno, eventually gave her back both. So yes, obviously there was a sense of some deep-seated and dangerous taboo that our relationship violated. But this taboo was not bestiality—it was incest" (193). Bruno presents us with a Darwinian narrative of kinship and evolution that unfolds through his becoming human, and with a Freudian, oedipal narrative of boundary transgression within the family. Positioned between excessive exogamy and incest, there is no social place for Bruno and Lydia's love. However, the relationship is flawed in another respect as well. The first time Bruno penetrates Lydia she is unconscious, knocked out by the strong sleeping pills she uses during her migraines. Bruno's trespass constitutes what Lydia herself will later call rape, although she comes to accept the situation and, according to Bruno, soon returns his passion. However, we never gain insight into her view of things apart from the dialogue reported verbatim, to which her contributions become less and less frequent. In contrast to Isabel, Lydia is successively deprived of her agency by her illness and dependency on heavy medication, by Bruno's ruthless and immature pursuit of his gratification, by his narrative that ultimately frames her as a silenced object, and finally, by the violence done to her.

Lydia's pregnancy is discovered when she is hospitalized on account of her brain tumor. The concomitant exposure of Bruno's paternity is instantly passed to the media, with the result that religious protesters gather in front of Lydia and Bruno's apartment house, "chanting their idiocies outside of our apartment all day and night" (332). Despite Lydia's debilitated state after her brain surgery, the Christian fundamentalists show no mercy. Shouting incessantly through a megaphone, the protesters call Lydia "the whore of Babylon, calling [Bruno] an abomination before God and man, asserting that there lived in her belly the child of Satan" (335). While Bruno invokes the narrative of genetic closeness—"Humans and chimps have more chromosomes in common than a donkey and a horse" (330–31)—to justify the relationship as "only natural" (331), the protesters see it as a desecration of the divine will to keep the species separate. The conflict thus starts as a war of words in which the protesters set up Lydia, Bruno, and their unborn child as creatures outside the pale of humanity, and therefore killable. The Old Testament



furnishes the protesters with the powerful vocabulary that cancels out the interspecies lovers' social existence, and thus their right to be protected from harm. The counternarrative that science could provide, precisely the Darwinian narrative of the human-simian relationship, cannot at this stage be uttered, because the representative of science, the primatologist Lydia, cannot speak, and Bruno, a juvenile animal and noncitizen, cannot make himself heard. Bruno's apology for their love can be uttered only in retrospect, through the dictation of his autobiography.

As Kevin W. Saunders has argued, hate speech is closely connected to a conceptualization of sexual acts as obscene; obscenity in turn is deeply rooted in monotheism: "Once God becomes a singular, nonsexual being, showing humans in sexual acts is depicting humans as on the animal side of a divine/animal divide."<sup>51</sup> In Western monotheistic culture, sex defines the chasm between the divine and the animal; therefore, "obscenity is not really about sex" but "about the placement of humankind in the hierarchy of the animal."<sup>52</sup> Unsurprisingly, Darwin's negation of a clear separation between the different species and the concomitant repositioning of humankind, from the divine to the animal side of the divide, only served to heighten prevalent anxieties about human sexuality. According to Saunders, the increase in obscenity prosecutions from the late nineteenth century through the first half of the twentieth in the United States was directly related to the growing public awareness of, and resistance to, Darwinism: "It is as though society expressed itself in denial of Darwin's claims by proscribing the depiction of humans engaged in animal or such nondivine activities."<sup>53</sup> The fact that Lydia and Bruno not only had sex but actually succeeded in merging their gametes thus confirms the Christian fundamentalists' worst fears: humans are animals. The Judeo-Christian promise of dominion over nature is negated by Darwin's assertion that man is part of nature. This is Bruno's conclusion too: "And they hated us because of this: because here, swimming in a pouch of fluid in Lydia's lower abdomen, was living, unassailable proof of human evolution" (336). The Darwinian narrative literally comes true in this union. The protesters' nonverbal act that follows upon their hate-filled speech acts is designated to undo this "becoming flesh" of Darwin's word, by in turn literalizing their reading of the Bible. The injunction taken from Leviticus 20:16—"And if a woman lies with any animal, you shall kill both the woman and the animal. They must be put to death. Their blood shall be upon them"—which Bruno finds smeared on the wall of Lydia's bedroom (366), has been acted out, at least in its first part, on Lydia's body.

In *Excitable Speech*, Judith Butler, following J. L. Austin, distinguishes between hate speech as an illocutionary speech act that performs the injury done to the addressee at the very moment of utterance, and hate speech as a perlocutionary speech act that describes an injury or produces one as a consequence (18). In the second model, which Butler advocates, there is a time lag between the utterance and its effect; this allows the addressee to rearticulate the original utterance and

thereby to deflect its injurious effect. Bruno's entire autobiography can be regarded as such an attempt at rearticulating the fundamentalists' hate speech and, more broadly, the anthropocentric narrative that denies him recognition as a being of equal value. However, in Lydia's case, hate speech is swiftly followed by an act of hatred, and the injury she sustains cannot be rewritten and undone, partly because she was deprived of speech and thus of agency even before this deed. Her body is reduced to a mere site of struggle, ravaged by the conflict between the biblical and the evolutionary narratives about men and apes. While the two speech acts, the fundamentalists' "reiteration" of Leviticus and Bruno's autobiographical assertion of his equivalence with humans, are certainly not homologous, they have one aspect in common: Lydia has no active share in the construction of either narrative.

Darwin is still very present on the American scene. The conflict epitomized by the Scopes trial—evolution versus Genesis—continues to influence public debates and political activism, much more so in the United States than in the public sphere of most European countries. However, negotiations of the Darwinian narrative have become vastly more complex since the days of Bryan's and Darrow's heated exchanges at Dayton. Research in genetics, primatology, and evolutionary psychology has provided ample evidence for the close kinship between human and nonhuman primates, and all animals. The ecological movement similarly emphasizes the interconnectedness of all living beings, and the devastating impact the wrong choices of the dominant species may have on all the others—a theme taken up in several contemporary novels, including Jonathan Franzen's *Freedom* (2010) and T. C. Boyle's *When the Killing's Done* (2011). But advances in our knowledge of nature do not signify closure; on the contrary, the current proliferation of fiction on animals, nature, and science suggests that this nexus provides us more than ever with food for imaginative thought experiments.

The two novels discussed here are further examples of the topicality of many questions raised by Darwin and those working in his tradition. *Ape House* and *The Evolution of Bruno Littlemore* address in particular the issue of ape language acquisition and the resultant question: What would happen if experiments really produced apes who are linguistically humans' equals? If one takes a closer look, the answer is rather unsettling. Even in Gruen's determinedly cheerful novel, the bonobos end up in confinement; Hale's speaking chimp, Bruno, fares even worse. Since apes have traditionally served as figures of reflection on the human condition, their denial of freedom in both novels suggests that language is not a boon elevating the human species above nature, but rather a manacle that keeps humans locked in a prison of their own making. This pessimistic view is largely obliterated in *Ape House*, but Hale's darker tale joins the literary tradition, from Shakespeare to Kafka, that skeptically challenges the belief in the transparency of language as well as the narrative of human ascent.

The speaking ape is not the only figure through which the vulnerability and precariousness of the human status is explored in the novels. It is significant that in both cases, the ape's counterpart is a woman primatologist. Drawing on the complex positioning of women as mediators between nature and culture in real-life primatology, which has been analyzed by Donna Haraway, both novels depict their female protagonists as go-betweens with a special emotional and physical connection to apes. In consequence, these women's hold on a socially secured subject status is shown to be much more tenuous, much more vulnerable than that of the various powerful male figures in the novels. This precarious status makes the women's position converge with that of the animals, to the point of experiencing a similar helplessness and subjection at the hands of scientific, medical, and penal institutions.

The fantasy of the interspecies romance is played out in these women-ape relationships, but while its transgressive potential is rendered innocuous through a carefully constructed heteronormative framework in *Ape House*, the cross-species transgression is flaunted in *The Evolution of Bruno Littlemore*. Does this mean that Hale's novel, with its formal affinity with postmodernism, comes closer to fulfilling the mandate of posthumanism, namely to disrupt the logic of the traditional narratives of anthropocentrism and speciesism? I would argue that it falls short of this—possibly unattainable—goal. Despite its explicit alignment with the Darwinian narrative, and despite its rhetorical fireworks that paradoxically support a notion of language as a deficient prothesis of the human animal, *Bruno Littlemore* remains committed to a fundamentally anthropocentric and androcentric narrative. The true Other we encounter in this novel is not the almost-human ape, but the dying Lydia. But the novel ultimately shies away from imagining her naked life, divested of consciousness and dignity. Instead, we get Bruno's self-involved memoir, which consistently presents Lydia as an object, first of desire, then of pity. To look at a suffering, silenced woman from a male vantage point does not exactly constitute a break with traditional gender patterns. Despite its formal sophistication, Hale's novel misses the chance to explore Otherness at the interstices between the human and the animal, between social existence constituted by language and the mortal body beyond language.

#### NOTES

1. Peter J. Bowler, *Monkey Trials and Gorilla Sermons: Evolution and Christianity from Darwin to Intelligent Design* (Cambridge, Mass.: Harvard University Press, 2007), 3.

2. On the Scopes trial in the wider context of evolutionism and fundamentalism, see in particular the studies by Adam Laats, *Fundamentalism and Education in the Scopes Era: God, Darwin, and the Roots of America's Culture Wars* (Basingstoke, England: Palgrave Macmillan, 2010); and Jeffrey P. Moran, *American Genesis: The Antievolution Controversies from*

*Scopes to Creation Science* (Oxford: Oxford University Press, 2012). See also Paul K. Conkin, *When All the Gods Trembled: Darwinism, Scopes, and American Intellectuals* (Lanham, Md.: Rowman and Littlefield, 1998). On the reception of Darwinism before 1900, particularly by American theologians, see Jon H. Roberts, *Darwinism and the Divine in America: Protestant Intellectuals and Organic Evolution, 1859–1900* (Madison: University of Wisconsin Press, 1988).

3. See Virginia Richter, *Literature after Darwin: Human Beasts in Western Fiction, 1859–1939* (Basingstoke, England: Palgrave Macmillan, 2011), 62–118, for the fear of and fascination with apes in fiction from 1859 to the 1930s.

4. Bowler, *Monkey Trials and Gorilla Sermons*, 28f.

5. Moran, *American Genesis*, 15–17.

6. William Jennings Bryan, “Summation for the State from the Scopes Trial,” in *Adam or Ape: A Sourcebook of Discoveries about Early Man*, 2nd ed., ed. L. S. B. Leakey, Jack Prost, and Stephanie Prost (Cambridge, Mass.: Schenkman, 1982), 43. Hereafter cited in the text as “Summation.”

7. Moran, *American Genesis*, 99–100.

8. On degeneration, see William Greenslade, *Degeneration, Culture and the Novel, 1880–1940* (Cambridge: Cambridge University Press, 1994); and Daniel Pick, *Faces of Degeneration: A European Disorder, c. 1848–c. 1918* (Cambridge: Cambridge University Press, 1989).

9. See Roger Lewin, *Bones of Contention: Controversies in the Search for Human Origins*, 2nd ed. (Chicago: University of Chicago Press, 1997); for a summary, see esp. 301–19.

10. See Ernst Mayr, “Prologue: Some Thoughts on the History of the Evolutionary Synthesis,” in *The Evolutionary Synthesis: Perspectives on the Unification of Biology*, 4th ed., ed. Ernst Mayr and William B. Provine (Cambridge, Mass.: Harvard University Press, 1998), esp. 3–39 on the status of the Darwinian theory and competing approaches to evolution in the 1920s and 1930s.

11. Charles Darwin, *The Origin of Species*, ed. Gillian Beer (Oxford: Oxford University Press, 1996).

12. See Peter J. Bowler, *The Non-Darwinian Revolution: Reinterpreting a Historical Myth* (Baltimore, Md.: Johns Hopkins University Press, 1992).

13. David Amigoni, “Evolution,” in *The Routledge Companion to Literature and Science*, ed. Bruce Clarke and Manuela Rossini (London: Routledge, 2011), 118.

14. See Charles Lyell, *Principles of Geology: An Attempt to Explain the Former Changes of the Earth's Surface, by Reference to Causes Now in Operation* (Cambridge: Cambridge University Press, 2009), 1:1–3.

15. Amigoni, “Evolution,” 118.

16. George Levine, *Darwin the Writer* (Oxford: Oxford University Press, 2011), 75.

17. Robert N. Proctor and Londa Schiebinger, preface to *Agnotology: The Making and Unmaking of Ignorance*, ed. Robert N. Proctor and Londa Schiebinger (Stanford, Calif.: Stanford University Press, 2008), vii.

18. For example, the ETH Zurich and the Max Planck Institute for the History of Science, Berlin.

19. Michael Gamper, “Experimentelles Nicht-Wissen: Zur poetologischen und epistemologischen Produktivität unsicherer Erkenntnis,” in *Experiment und Literatur: The-*

men, *Methoden, Theorien*, ed. Michael Gamper (Göttingen: Wallstein, 2010), 539–40, my translation.

20. Gillian Beer, *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot, and Nineteenth-Century Fiction*, 3rd ed. (Cambridge: Cambridge University Press, 2009).

21. Thomas Henry Huxley, *Evidence as to Man's Place in Nature* (Cambridge: Cambridge University Press, 2009), 57.

22. Naturally, the ape theme is not confined to American fiction. Perhaps the internationally best-known novel of the kind is Peter Høeg's *The Woman and the Ape* (1996), which combines the motif of the wise ape with that of the interspecies romance.

23. The literature on ape communication is too extensive to be surveyed here. A theory I find particularly convincing is Michael Tomasello, *Origins of Human Communication* (Cambridge, Mass.: MIT Press, 2008). For a different position, see the contributions by Roger S. Fouts and Deborah H. Fouts, H. Lyn White Miles, and Francine Patterson and Wendy Gordon, all in *The Great Ape Project: Equality beyond Humanity*, ed. Paola Cavalieri and Peter Singer (New York: St. Martin's Griffin, 1993).

24. Cary Wolfe, *Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory* (Chicago: University of Chicago Press, 2003), 3. Hereafter cited in the text as *Rites*.

25. Cary Wolfe, *What Is Posthumanism?* (Minneapolis: University of Minnesota Press, 2010), 80.

26. One notable exception is *Great Apes* (1997) by the British novelist Will Self, a thought experiment in which apes are the leading species and humans are kept in zoos. Self details, for example, their differences in spatial perception and body movement.

27. According to Freud, in the family romance (*Familienroman*) the child fantasizes that he or she has been adopted, and that the lost biological parents are more perfect, loving, and socially superior than the actual parents. Sigmund Freud, "Family Romances," in *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, trans. and ed. James Strachey (London: Vintage, 2003), 9:235–42.

28. Charles Darwin, *The Descent of Man* (New York: Prometheus, 1998), 151.

29. Huxley, *Evidence*, 110.

30. *Ibid.*, 112.

31. Such "stone age stories" include "The Grisly Folk" (1921) and "A Story of the Stone Age" (1899) by H. G. Wells, and *The Story of Ab* (1903) by Stanley Waterloo.

32. See, for example, Francine Patterson and Eugene Linden, *The Education of Koko* (New York: Holt, Rinehart, and Winston, 1981).

33. Tomasello, *Origins of Human Communication*, 8–10.

34. *Ibid.*, 93–94, 98.

35. Kevin N. Laland and Bennett G. Galef, introduction to *The Question of Animal Culture*, ed. Kevin N. Laland and Bennett G. Galef (Cambridge, Mass.: Harvard University Press, 2009), 9–10. For an extensive argument in favor of ape culture, see Frans de Waal, *The Ape and the Sushi Master: Cultural Reflections by a Primatologist* (London: Allen Lane, 2001).

36. Sara Gruen, *Ape House* (2010; rpt., New York: Spiegel and Grau, 2011), 4–5. Page references are hereafter cited in the text.

37. Christophe Boesch, "Behavioural Diversity in *Pan*," in *Behavioural Diversity in Chim-*

*panzees and Bonobos*, ed. Christophe Boesch, Gottfried Hohmann, and Linda F. Marchant (Cambridge: Cambridge University Press, 2002), 4.

38. See, for example, an article by Michael Ghiglieri on Goodall's research, "War among the Chimps," *Discover* (Nov. 1987): 67–76. The "chimp wars" described by Goodall also form the subject matter of William Boyd's novel *Brazzaville Beach* (1990).

39. Boesch, "Behavioural Diversity in *Pan*," 4–5.

40. Alla Katsnelson, "Frogs and Humans Are Kissing Cousins," *Nature* (2010), <http://www.nature.com/news/2010/100429/full/news.2010.211.html> (accessed July 2, 2012).

41. Helen Cooper, *The English Romance in Time: Transforming Motifs from Geoffrey of Monmouth to the Death of Shakespeare* (Oxford: Oxford University Press, 2004), 9–10.

42. Benjamin Hale, *The Evolution of Bruno Littlemore* (New York: Twelve, 2011), 62. Page references are hereafter cited in the text.

43. Judith Butler, *Excitable Speech: A Politics of the Performative* (London: Routledge, 1997), 2. Hereafter cited in the text as *Excitable Speech*.

44. See Susan J. Hekman, *Gender and Knowledge: Elements of a Postmodern Feminism* (Boston: Northeastern University Press, 1990), esp. 30–39.

45. Donna Haraway, *Primate Visions: Gender, Race, and Nature in the World of Modern Science* (London: Routledge, 1989), 11.

46. In addition to Haraway, see Marianne Sommer, *Foremost in Creation: Anthropomorphism and Anthropocentrism in National Geographic Articles on Non-Human Primates* (Bern: Peter Lang, 2000).

47. Haraway, *Primate Visions*, 151.

48. *Ibid.*, 145.

49. Brian E. Noble, "Politics, Gender, and Worldly Primatology: The Goodall-Fossey Nexus," in *Primate Encounters: Models of Science, Gender, and Society*, ed. Shirley C. Strum and Marie Fedigan (Chicago: University of Chicago Press, 2000), 457.

50. Patterson and Linden, *Education of Koko*, 13.

51. Kevin W. Saunders, *Degradation: What the History of Obscenity Tells Us about Hate Speech* (New York: New York University Press, 2011), 5.

52. *Ibid.*

53. *Ibid.*